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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,469	07/03/2003	Nobutaka Tauchi	4041J-000738	3157

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EXAMINER

REGO, DOMINIC E

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,469

Applicant(s)

TAUCHI, NOBUTAKA

Examiner

Dominic E. Rego

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/03/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Takatani et al. (*US Patent Application Publication #20050227616*).

Regarding claim 1, Takatani teaches a wireless communication terminal operating based on a time division scheme (*paragraph 0064*) and having a normal communication function between the terminal and a base station (*Figure 1, base station 2 and the terminal 6 having a normal communication function with each other*) and a relay communication function between a second wireless communication terminal (*Figure 1, element 5*) and the base station (*Figure 1, element 2*) (*Paragraphs 0047, 0048, and 049*), the terminal comprising:

a baseband processor that spread-demodulates relay signals (*Figure 1, terminal 6 which inherently has a baseband processor that spread-demodulates relay signals receives from terminal 5*) and spread-modulates the spread-demodulated relay signals

(Figure 1, terminal 6 which spread-modulates the spread-demodulated relay signals and transmits to the base station)(Paragraph 0060); and

a multiplex controller performing an operation for producing a command so that the baseband processor *(inherent in the communication system)* multiplexes the spread-modulated relay signal with the other spread-modulated relay signal at a timing other than a timing when a time division communication *(TDMA)* is operated in the wireless communication terminal, the relay signal are code-multiplexed with the other relay signals *(Paragraph 0086: Takatani discloses any type of mobile communication networks may be used which means CDMA network system can be used to multiplexes the spread-modulated relay signal with the other spread-modulated relay signal; paragraph 0064: Takatani teaches the second terminal 6 may be able to relay signals for a plurality of terminals simultaneously).*

Regarding claim 2, Takatani teaches the wireless communication terminal according, wherein the multiplex controller changes the operation based on a condition within a service area of the terminal (Paragraph 0066, 0069).

Regarding claim 3, Takatani teaches the wireless communication terminal, wherein the multiplex controller changes the operation in response to an instruction from the base station *(Paragraph 0066).*

Regarding claim 7, Takatani teaches the wireless communication terminal, wherein the condition is the number of free time slots of the time division scheme of the wireless communication terminal (*Paragraph 0064: Takatani teaches TDMA the user of the second terminal 6 may still able to make and receive calls or send and receive data even while being used as a relay by the first terminal 5. This can be achieved using time division multiple access (TDMA), wherein TDMA slots are allocated for the terminal's own use and different TDMA slots (number of free time slot) are allocated for use by another terminal).*

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takatani et al. (*US Patent Application Publication #20050227616*) in view of Nakamura et al. (*US Patent Application Publication #20030012294*).

Regarding claim 4, Takatani teaches all the claim element in claim 1, except for the wireless communication terminal wherein the wireless communication terminal comprises transmission rate setting means for setting a transmission rate for the relay communication based on a condition within a service area of the base station.

However, in related art, Nakamura teaches transmission rate setting means for setting a transmission rate for the relay communication based on a condition within a service area of the base station (*Claim 4*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of transmission rate setting means for setting a transmission rate for the relay communication based on a condition within a service area of the base station, as taught by Nakamura, in the Takatani's device in order to control the transmission speed by using a buffer storage 14 so as not to exceed the control transmission speed set by the transmission speed setting section 12. (See Abstract of Nakamura).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takatani et al. (*US Patent Application Publication #20050227616*) in view of Ando (*US Patent Application Publication #20050141463*).

Regarding claim 5, Takatani teaches all the claimed elements in claim 1, except for the wireless communication terminal, wherein the transmission rate setting means changes the transmission rate in response to an instruction from the base station.

However, in related art, Ando teaches the wireless communication terminal, wherein the transmission rate setting means changes the transmission rate in response to an instruction from the base station (*Paragraph 0018*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of the wireless communication terminal, wherein the transmission rate setting means changes the transmission rate in response to an instruction from the base station, as taught by Ando, in the Takatani device in order to optimize the communication.

Response to Arguments

4. Applicant's arguments filed 03/09/2006 have been fully considered but they are not persuasive.

Regarding claim 1, applicant argues that Takatani does not disclose, teach or suggest code-multiplexing the relay signals with the other signals at a time other than a timing when a time division communication is operated in the wireless communication terminal. The examiner disagrees because in paragraph 0086, Takatani teaches any type of mobile communication networks may be used which means CDMA network system can be used to multiplexes the spread-modulated relay signal with the other spread-modulated relay signal from the mobile terminal 5 or 8 in figure 2. Also, in paragraph 0064, Takatani teaches the second terminal 6 may be able to relay signals for a plurality of terminals simultaneously which means terminal 6 multiplexes the spread-modulated relay signal with the other spread-modulated relay signal from the mobile terminal 5 or 8 simultaneously.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic E. Rego whose telephone number is 571-272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dominic E. Rego



NAY MAUNG
SUPERVISORY PATENT EXAMINER